

REMARKS

The Examiner has rejected claims 1, 2, 4-6, 8-10, 12-14, 16-18 and 20 under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent 6,137,915 to Chai in view of Applicant's Admitted Prior Art (AAPA), and further in view of International Patent Application No. WO 00/45378 to Liljeryd et al. The Examiner has further rejected claims 3, 7, 11, 15 and 19 under 35 U.S.C. 103(a) as being unpatentable over Chai in view of AAPA and Liljeryd et al., and further in view of U.S. Patent 5,384,793 to Zinser.

The Chai patent discloses an apparatus and method for error concealment for hierarchical subband coding and decoding, having a transmitter including means for decomposing an input signal into frequency band signals, first and second encoders for encoding the frequency band signals, transmitting the encoded signals, and a receiver including first and second decoders.

AAPA, as noted by the Examiner, indicates that it is known to use a splitter to split the input signal into bands, and a combiner for merging the bands to form a signal output.

The Liljeryd et al. patent discloses efficient spectral envelope coding using variable time/frequency resolution and time/frequency switching, in which a delay is used in a decoder for delaying one of the decoded signals in order to compensate for processing time of decoding one of the signals.

Claim 1 (as well as independent claims 5, 9, 13 and 17) includes the limitation "reconstruction means for reconstructing the second decoded frequency band signal when the second decoded

frequency band signal is not available, characterized in that the reconstruction means reconstructs the second decoded frequency band signal from the first decoded frequency band signal". The Examiner has indicated that Chai teaches this limitation "Fig. 5, col. 4, lines 30-42, col. 5, lines 9-27, corrupted subband HH2 can be concealed by using uncorrupted coefficients...from other subbands LH2 and HL2".

Applicant submits that the Examiner is mistaken. In particular, Chai, at col. 5, lines 9-27, states that error concealment is achieved by using uncorrupted coefficients for the same ***spatial location***. In line 14, the term "pixel" (picture element) is explicitly used. The Chai patent therefore deals with video coding, not with audio coding. Applicant believes that a person skilled in the art would definitely not be inclined to use coefficients for the same spatial location in the audio transmission system of the present invention, in that, in audio coding, there is no "spatial location". Any coefficients in audio coding represent time signals, not pixels.

In addition, in Chai, any extrapolated coefficients relate to the same spatial location, whereas the present invention uses the signal of one frequency band to reconstruct another signal, that is, the signal of the other frequency band. In this respect, the teaching of Chai leads the person skilled in the art away from the present invention.

Applicant submits that neither AAPA nor Liljeryd et al. supply the reconstruction means as presented in the claims.

Claim 3 includes the limitation "the reconstruction means reconstructs a present frame of the second decoded frequency band signal from a present frame of the first decoded frequency band signal and from a previous frame of the second decoded frequency band signal". The Examiner has indicated that Zinser teaches this limitation, "Zinser discloses an error protection method for dynamic bit allocation sub-band coding. Zinser teaches that energies from the previous frame can be combined with energies from the adjacent energies in the current frame for synthetic regeneration (col. 3, lines 8-16)."

Applicant submits that the Examiner is mistaken. In particular, Zinser indicates that the energies from a previous frame and adjacent energies from the current frame are used. However, there is no disclosure or suggestion that "adjacent" energies would be from the current frame of a decoded frequency band signal different from the decoded frequency band signal which is being reconstructed. Further, Applicant submits that Zinser does not supply that which is missing from Chai, AAPA and Liljeryd et al., i.e., "reconstruction means for reconstructing the second decoded frequency band signal when the second decoded frequency band signal is not available, characterized in that the reconstruction means reconstructs the second decoded frequency band signal from the first decoded frequency band signal".

In view of the above, Applicant believes that the subject invention, as claimed, is not rendered obvious by the prior art,

either individually or collectively, and as such, is patentable thereover.

Applicant believes that this application, containing claims 1-20, is now in condition for allowance and such action is respectfully requested.

Respectfully submitted,

by /Edward W. Goodman/
Edward W. Goodman, Reg. 28,613
Attorney
Tel.: 914-333-9611
